



U.S. Department of Energy
Technical Qualification Program

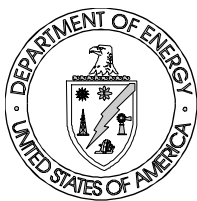
Technical Training Topical Area

Study Guide

For the

*Fire Protection
Qualification Standard*

August 1996



Competency 4.9 Fire protection personnel shall demonstrate the ability to evaluate fire protection training and qualification programs.

1. Supporting Knowledge and Skills

- a. Observe and evaluate two on-the-job training exercises for adequacy and adherence to appropriate local guidelines.
- b. Review a set of contractor fire protection personnel training records for accuracy and completeness.

2. Self-Study Activities

NOTE: • Below are two web sites containing many of the references you may need.

Web Sites		
Organization	Site Location	Notes
Department of Energy	http://cted.inel.gov/cted/index.html	DOE Standards, Guides, and Orders.
U.S. House of Representatives	http://law.house.gov/cfr.htm	Searchable Code of Federal Regulations

Read DOE-STD-0012-92, *DOE Guide to Good Practices for On-the-Job Training*, Section 4, Conducting OJT, pages 23-30, and Section 5, Evaluating Performance, pages 31-36.

Read local guidelines, as applicable.

EXERCISE 4.9-A Observe an OJT session to see if the guidelines suggested in DOE-STD-0012-92, *DOE Guide to Good Practices for On-the-Job Training*, are followed. Note any deviations.

Read DOE-STD-0012-92, *DOE Guide to Good Practices for On-the-Job Training*, Section 3.4.4, Training Records, pages 19-20.

EXERCISE 4.9-B Conduct a review of a set of contractor fire protection personnel training records for accuracy and completeness. Note any deviations.



Read pages 49 and 50, DOE-HDBK-1078-94, U.S. Department of Energy Handbook, *Training Program Handbook: A Systematic Approach to Training*.

EXERCISE 4.9-C Review components of an individual training record, as found on page 50, Section 5.3.2, DOE-HDBK-1078-94.

EXERCISE 4.9-D Review components of a training program record, as found on pages 49 through 50, Section 5.3.1, DOE-HDBK-1078-94.

Review pages 6 through 21, *Training Manager's Resource Guide*, TRADE.

EXERCISE 4.9-E Review procedures for developing training records, found on pages 6 through 18 of *The Training Manager's Resource Guide*, TRADE. Identify some factors to consider in developing record keeping procedures.

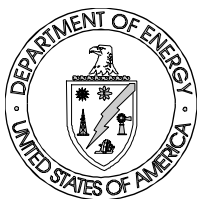
Read Sections 2.7, 3.4, and 5.11, pages 6 through 8, 14 through 15, and 28 through 29, of DOE-STD-1056-93, U.S. Department of Energy Standard, *Guide to Good Practices for Line and Training Manager Activities Related to Training*.

Read Sections 5.3, 6.0, and 7.0, pages 9 through 16, of DOE-STD-1070-94, U.S. Department of Energy Standard, *Guidelines for Evaluation of Nuclear Facility Training Programs*.

Read pages 53 through 63 of DOE-HDBK-1078-94, U.S. Department of Energy Handbook, *Training Program Handbook: A Systematic Approach to Training*.

EXERCISE 4.9-F Review the appendix of DOE-STD-1070-94, U.S. Department of Energy Standard, *Guidelines for Evaluation of Nuclear Facility Training Programs*.

EXERCISE 4.9-G Review Attachment 48 of DOE-HDBK-1078-94, U.S. Department of Energy, *Training Program Handbook: A Systematic Approach to Training*.



3. Summary

OJT is designed to prepare employees for job performance through training and performance testing that is conducted in the actual work environment. It provides practical hands-on experience, and has the advantage of providing training on tasks that are of immediate need to the employee. OJT is limited to those situations in which it is administratively and physically possible to conduct the training (i.e., where facilities are adequate, where OJT can be conducted without significant interference with facility operations, and where qualified personnel are available to conduct and manage the OJT program).

Auditable records of each individual's participation and performance in, or exception(s) granted from, the training program(s) should be maintained. A historical record that documents initial qualifications on each position qualified should be a part of the records. In addition, records of OJT programs (which should include an audit trail documenting the development of and modifications to each program) and evaluations of the effectiveness of those programs should be maintained.

Evaluation of a technical training and qualification program activity typically includes the following criteria, as a minimum:

Criteria	Applications
Are the materials prepared at a level of skills and knowledge appropriate to the trainees?	Determine whether material content can be related to expected entry-level skills and knowledge, including appropriate reading level of the trainees.
Are the materials clearly written and presented so the trainee can complete the required learning activities?	Determine whether selected trainees can use the materials and complete the learning activities.
Do the materials reflect the learning objectives of the desired program?	Assess the material, comparing the learning objectives to those of the desired program, and determine which learning objectives are not covered adequately.
Are the materials consistent with other materials used in the training program or the mastery of the learning objectives?	Analyze sets of materials to determine whether they are supportive and provide an effective progression of learning.



Criteria	Applications
Do the materials conform to the learning activities of the desired program?	Analyze the materials, comparing the learning activities to those of the desired program. Identify any deficiencies.
Are the materials practical for use in the given facility situation?	Determine whether the materials can be used in facilities with available equipment, time, and space, and with the number of trainees planned.

The facility's training organization and programs should be evaluated periodically to determine whether they are achieving the established goals and objectives. The effectiveness of training programs to produce qualified personnel should also be evaluated periodically. This should be accomplished by reviewing operating occurrences, interviewing job incumbents and first-line supervisors, observing operations, etc. The results of these evaluations, if used correctly, will help ensure a facility of safe, efficient, and reliable operations.

The following considerations should be emphasized when evaluating training and qualification programs:

- The responsibility for monitoring indicators, analyzing data, and approving revisions is clearly defined.
- The training department is alerted to facility operating, maintenance, and industrial safety experiences.
- Communication on training effectiveness occurs between plant supervisors and the training department.
- Employee opinion of the equality and effectiveness of training is collected periodically.
- The training department is alerted to employee performance errors.
- The training department meets with maintenance and operations supervisors and engineers to determine potential training problems.
- Training uses facility inspection and evaluation reports to guide program revisions.
- Facility modifications and procedure changes are monitored for training consequences.
- Training monitors industry operating and maintenance experiences for program impacts.
- Regulatory changes are reviewed for training consequences.
- Program performance data are analyzed.
- Proposed changes are reviewed by appropriate facility and training personnel.
- Training changes are tracked.



4. Exercise Solutions

EXERCISE 4.9-A Observe an OJT session to see if the guidelines suggested in DOE-STD-0012-92, *DOE Guide to Good Practices for On-the-Job Training*, are followed. Note any deviations.

ANSWER 4.9-A None required.

EXERCISE 4.9-B Conduct a review of a set of contractor fire protection personnel training records for accuracy and completeness. Note any deviations.

ANSWER 4.9-B None required.

EXERCISE 4.9-C Review components of an individual training record, as found on page 50, Section 5.3.2, DOE-HDBK-1078-94.

ANSWER 4.9-C Individual training records should include the types of general information listed on page 50, 5.3.2, DOE-HDBK-1078-94.

EXERCISE 4.9-D Review components of a training program record, as found on pages 49 through 50, Section 5.3.1, DOE-HDBK-1078-94.

ANSWER 4.9-D Training program records should include the types of general information listed on page 50, Section 5.3.1, DOE-HDBK-1078-94.

EXERCISE 4.9-E Review procedures for developing training records, found on pages 6 through 18 of *The Training Manager's Resource Guide*, TRADE. Identify some factors to consider in developing record keeping procedures.

ANSWER 4.9-E Some general factors to consider in developing record-keeping procedures:

- Sufficiency
- Maintenance of current and complete information
- Confidentiality
- Accessibility
- Security and Storage



Section 5.0

EXERCISE 4.9-F Review the appendix of DOE-STD-1070-94, U.S. Department of Energy Standard, *Guidelines for Evaluation of Nuclear Facility Training Programs*.

ANSWER 4.9-F None required.

EXERCISE 4.9-G Review Attachment 48 of DOE-HDBK-1078-94, U.S. Department of Energy, *Training Program Handbook: A Systematic Approach to Training*.

ANSWER 4.9-G None required.